

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-498/88-62
50-499/88-62

Operating License: NPF-76
Construction Permit: CPPR-129

Dockets: 50-498
50-499

Licensee: Houston Lighting & Power Company (HL&P)
P.O. Box 1700
Houston, Texas 77001

Facility Name: South Texas Project (STP), Units 1 and 2

Inspection At: STP, Matagorda County, Texas

Inspection Conducted: September 12-14, 1988 and October 10-14, 1988

Inspectors:

T. O. McKernon
T. O. McKernon, Reactor Inspector, Test
Programs Section, Division of Reactor Safety

10/26/88
Date

H. F. Bundy
H. F. Bundy, Reactor Inspector, Test Programs
Section, Division of Reactor Safety

10/26/88
Date

Approved:

W. C. Seidle
W. C. Seidle, Chief, Test Programs Section
Division of Reactor Safety

10/26/88
Date

Inspection Summary

Inspection Conducted October 10-14, 1988 (NRC Inspection Report 50-498/88-62)

Area Inspected: Routine, unannounced inspection of followup to previously
identified inspection concerns related to the quality control program.

8811070201 881028
PDR ADOCK OS000498
Q PDC

Results: Generally, the maintenance work request packages reviewed by the NRC inspector satisfied the applicable requirements and were properly reviewed by management for content and completeness. No violations or deviations were identified; however, an unresolved item concerning maintenance practices relative to Unit 1 was identified, (paragraph 5).

Inspection Conducted September 12-14, 1988 (NRC Inspection Report 50-499/88-62)

Areas Inspected: Routine, unannounced inspection of preoperational test procedure review, preoperational test witnessing, location of manual trip circuit, and fuel receipt.

Results: Procedures reviewed satisfied applicable requirements. The preoperational testing witnessed by the NRC inspectors was performed in accordance with the licensee's administrative procedures. The manual trip circuit was correctly located to perform its intended function. Fuel receipt was properly performed in accordance with licensee procedures. No violations or deviations were identified.

DETAILS1. Persons ContactedHL&P

J. Westermeier, STP General Manager
 *S. Head, Supervisor Project Engineer
 K. O'Gara, Project Compliance Engineer
 *M. Polishak, Lead Engineer, Project Compliance Group
 J. Porter, Startup Engineer
 D. Wahlheim, Startup Engineer
 R. Thorin, Startup Engineer
 B. Bealfield, Maintenance Technical Supervisor
 **P. L. Walker, Licensing
 **D. N. Brown, Construction
 **W. J. Jump, Maintenance Supervisor
 **J. D. Green, Inspection and Surveillance Manager
 **M. A. McBurnett, Licensing Manager
 **M. R. Wisenberg, Plant Superintendent

NRC

D. Hunnicutt, Senior Project Engineer
 J. Tapia, Senior Resident Inspector, Unit 2
 J. Bess, Senior Resident Inspector, Unit 1
 *L. J. Callan, Director, Division of Reactor Projects, RIV
 **E. Holler, Chief, DRP/D, RIV

The NRC inspectors also interviewed other licensee employees during the inspection.

*Denotes those attending informal exit interview held on September 14, 1988. A formal exit interview was not held at the conclusion of the inspection of September 12-14, 1988, because of personnel unavailability due to the Hurricane Gilbert watch.

**Denotes those attending exit interview conducted on October 14, 1988.

2. Preoperational Test Procedure Review (70346)

The NRC inspector reviewed the following procedure to determine that it satisfied regulatory requirements, final safety analysis report (FSAR) commitments and industry standards.

- ° 2HF-P-02, Revision 0, TCN 1, "FHB HEPA/Charcoal Filter Test"

It was also determined that it complied with licensee administrative procedures.

No violations or deviations were identified in the review of this program area.

3. Preoperational Test Witnessing (70446)

The NRC inspector witnessed completion of portions of the following test:

- ° 2HE-P-01, Revision 0, TCN 4, "EAB HVAC System"

Activities witnessed were performed in accordance with the Test Procedure and Startup Administrative Instruction 18, Revision 7, "Preoperational Testing."

No violations or deviations were identified in the review of this program area.

4. Location of Manual Trip Circuits (TI2500/14)

The purpose of this part of the inspection was to confirm the correct location of the manual reactor trip circuits which are located downstream of Output Transistors Q3 and Q4 in the UV output circuit. This will prevent short-circuit failures of the automatic tripping of the associated reactor trip breakers as described in NRC Information Notice 85-18. The NRC inspector confirmed the correct location of the manual trip circuits for both units from Bechtel Drawings 14926-0387(1)00171-BWN/14926-0387(2)00171-BWN and 14926-0387(1)00172-BWN/14926-0387(2)00172-BWN.

No violations or deviations were identified in the review of this program area.

5. Followup to Previous Inspection Findings (92701)

This portion of the inspection involved the followup to quality control (QC) program concerns which, in part, were addressed in NRC Inspection Report 50-498/88-52;50-499/88-52. The main effort of this inspection was focused upon the review of maintenance work request packages (MWRs) for adequate QC instructions, inspections, and reviews. The MWRs listed in the attachment represent a review sampling of MWRs completed between March and August 1988. In the sample, greater weight was given to selecting MWRs completed during August 1988.

During the review of the MWR packages, the NRC inspector noted that the licensee is effectively applying the requirements of ANSI N18.7-1976. To that effort, the licensee has established a program for the inspection of activities affecting safety. Inspections, examinations, measurements, etc., are performed by qualified individuals in accordance with the requirements of ANSI N45.2.6. In those instances, where inspections are to be performed by qualified individuals other than the craftsmen performing the work, inspections are performed by the appropriate maintenance supervisor, systems engineer, or QC inspector. Generally, these practices are evidenced

by incorporation of independent verification hold points, maintenance verification points (MVPs), quality verification/notation points (QVPs, QNPs), and quality inspection points (QIPs) into the work instructions. Although not all maintenance procedures contained the above types of inspection hold points, the procedures generally provided evidence of a QC inspection sampling methodology. Applicable procedures, drawings, specifications, standards, codes, and acceptance criteria were either specifically stated in the MWR package or specifically referenced. The work instructions indicated that the first-line craftsmen and maintenance section supervisors have responsibility for proper maintenance implementation and cleanliness preservation. QC inspections (QNPs, QVPs, QIPs) are designated and incorporated into maintenance instructions during the maintenance procedure development. Determination of the specific types of QC inspections (e.g., torquing, cleanliness, clearances, lockwiring, etc.) and their frequency is established by the QC department. The QC department makes the determinations based upon QC inspector availability, QC inspection essentiality, and problem trending. QC inspection instructions are either specifically stated in the maintenance procedures or specific reference is made to vendor technical manuals or controlling plant procedures. Waivers of QC inspections are annotated in procedures with the waiving QC inspector's initial, date, and QC waiver number. Of those MWR packages reviewed, the NRC inspector noted three QC inspections were waived. In subsequent review of QC documentation, it was found that during August 1-28, 1988, 131 QC inspections were scheduled. Of the 131 QC inspections, 124 QC inspections were completed and 7 QC inspections waived. The NRC inspector noted no specific written guidance existed concerning the criteria for waiver. Subsequent discussion with the QC manager revealed that, in general, QC inspection waivers were based upon inspector availability, QC inspection essentiality, and priority of the maintenance evolution, (i.e., critical path element). Furthermore, it was noted that in those instances requiring postmaintenance testing, specific test instructions were either stated in the MWR package or specifically referenced. Postmaintenance testing results were independently reviewed and documented. In general, the licensee's QC efforts appear to be adequate. Maintenance evolutions affecting safety-related structures, systems, or components appear to be performed in a manner which ensures a quality level at least equivalent to that specified in the original design bases and requirements.

During the review of MWR packages, it was noted that certain inconsistencies exist between practices relative to simplified maintenance evolutions and more complex, detailed evolutions. These inconsistencies are best characterized as "inattention-to-detail" items on the craftsmen's part in recording data and to the involvement of maintenance section supervisors and QC personnel in review of MWR packages for completeness.

The NRC inspector noted, as an example, MWR IL-49553, "Electrical Penetration #EP-62," completed July 3, 1988. The MWR documents that the penetration failed an in-service leak test (ISLT). However, the MWR package did not specifically reference the repair MWR or the postmaintenance ISLT. The NRC inspector discussed this matter with key licensee personnel and stressed the importance of detailed documentation.

The licensee agreed that inclusion of specific references in the work package facilitates ready traceability. A subsequent review of documentation by the licensee retrieved records of postmaintenance testing from the onsite document control center. In this regard, the NRC inspector noted that no specific guidance exists in the licensee's MWR Program Procedure OPGP03-EM-0003, Revision 19, which delineates what the cognizant maintenance division foreman should check when reviewing an MWR package for completeness. The NRC inspector noted that the QC procedure for closure of MWRs/PMCs/SWRs included a checklist used by operations quality assurance during the final package review.

During review of MWR Package RH-57765, the NRC inspector noted that the craftsmen failed to document the heat number for the No. 4 removed stud. Recording the heat numbers of removed studs was required by Step 1B of the ASME Section XI repair and replacement traveler, R&R No 1-88-019. The failure to record the heat number is a concern that shall be identified as an unresolved item (50-498/8862-01) pending further investigation by the licensee. Other similar examples of inattention-to-detail and inadequate review were provided to the licensee. The NRC inspector discussed the inconsistencies with the licensee and indicated that such inconsistencies may be representative precursors to possible future programmatic problems.

6. Receipt of New Fuel at Reactor Facilities (81403) and (60502)

This portion of the inspection involved observation of the licensee's procedural implementation for receipt of new fuel. The NRC inspector verified that the licensee's physical security program provided satisfactory protection for new fuel upon receipt. Furthermore, the NRC inspector verified that the new fuel was inspected, assembled and stored in preparation for fuel loading in accordance with regulatory requirements, and FSAR commitments, license requirements, and procedural controls. The NRC inspector observed craftsmen and QC personnel unpacking new fuel bundles, performing visual inspection, and moving the new fuel bundles into temporary storage while awaiting fuel loading. The licensee had established precautions and the necessary measures to satisfy 10 CFR 73.67 and provided adequate physical protection of the new fuel bundles while in transit. Procedural controls were implemented for radiological controls to minimize personnel exposure and to limit and control foreign material in and around the fuel assembly storage area, Unit 2 fuel handling building. The responsible craftsmen established a foreign material exclusion (FME) area, controlled entry of personnel, tools, and equipment by use of a control log. The use of protective clothing and lanyarding of loose tools/items further prevented loss of FME or possible damage to new fuel. The NRC inspector noted that key personnel present during the new fuel receipt and storage were knowledgeable of the procedural requirements and cautious in their actions.

No violations or deviations were identified in the review of this program area.

7. Exit Interview

The NRC inspectors met with the licensee personnel denoted in paragraph 1 on September 14, 1988 and October 14, 1988. The NRC inspectors summarized the scope and findings of the inspection. The licensee did not identify as proprietary any of the information provided to, or reviewed by the NRC inspectors.

Attachment

MWR packages reviewed:

HC-65955	RC-55463
DG-68864	DJ-45043
PE-56110	BR-87031683
AF-59855	PL-49058
RH-65259	AF-87033311
RH-65257	PK-68821
PL-65095	CH-66582
PM-87024920	IL-49553
MS-59785	CM-66903
RC-68875	BR-55515
DG-55348	PK-68305
CV-69934	RH-57765
MS-66210	DG-68862
CV-65863	DG-87033314
AF-69673	DG-52064
FP-87027058	RH-57764
HE-59850	EW-58795